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PHAM, KHANH B				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

08/923,612

Applicant(s)

SURESH ET AL.

Examiner

Khanh B. Pham

Art Unit

2166

Period for Reply -- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 27-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/02)
- Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-25 and 27-31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Crozier (US 5,701,423 A), in view of Norin et al. (5,794,253 A), hereinafter **Crozier** and **Norin**.

As to claim 1, Crozier teaches a method for synchronizing datasets [col. 3, line 31-33, fig 1], Crozier is directed to dynamically reconciling or synchronizing databases for example synchronizing data records between handheld computer and desktop computer as detailed in fig 1, examiner interprets datasets are integral part of both handheld and desktop computer because both handheld and desktop computer have records related to for example schedule, to-do memo from handheld computer, and personal information, spreadsheet manager, word processing manager from desktop computer;

'receiving a request specifying synchronization of information records of a source dataset residing on a first device with information records of a target dataset residing on a second device' [col. 3, line 31-37, fig 1], Crozier specifically teaches sharing data, dynamically reconciliation and resolving conflicts between handheld computer and

desktop computer as detailed in fig 1, col. 3, line 31-37, information records of a source dataset residing on a first device corresponds to Crozier's fig 1, element 101, second device corresponds to fig 1, element 115;

determining a synchronization set by: (i) determining which, if any, information records have been previously transmitted to the target dataset but no longer exists at the source dataset' [col. 5, line 9-17, line 39-42], Crozier specifically teaches mapping of the fields between handheld, desktop devices, translation of data between both devices, and transfer of data between two devices as detailed in fig 1, furthermore, Crozier also suggests dynamically reconciling the records and resolving the conflicts between handheld and desktop data as detailed in col. 5, line 39-42;

(ii) determining which, if any, information records have been added to or modified at the source dataset since the source dataset was last synchronized with the target dataset' [col. 11, line 62-67, col. 12, line 1-8, fig 7], Crozier specifically suggests if the data in any given field is different, update to the field, or edit part or all of the data in the record and write it to the target database as detailed in col. 12, line 1-8;

'wherein each information record of the source dataset is assigned a unique identifier that is independent of either of the devices, for identifying said each information record at both the source dataset and the target dataset, said unique identifier being maintained in a device-independent record map that allows the unique identifier to be traced back to a specific information record regardless of which device the specific information record resides' [col. 8, line 10-38], Crozier specifically teaches

mapping between handheld, desktop computer records specifying the both handheld, desktop applications, further, Crozier also suggests handheld database file that specifies "record number", i.e., assigning "unique record id "defining the uniqueness of the record as detailed in col. 8, line 10-38; 'based on said synchronization set, synchronizing information records of the source dataset with information records of the target dataset' [col. 11, line 32-39], Crozier specifically suggests dynamic reconciliation between handheld computer to the desktop computer that including mapping of record fields between source dataset and target dataset as detailed in col. 11, line 32-39];

(i) using said unique identifiers, deleting from the target dataset any information records which have been previously transmitted to the target dataset but no longer exist at the source dataset' [col. 9, table 1, line 10-11], Crozier specifically suggests updating the target field table for specified handheld or source field as detailed in col. 9, line 10-11;

(ii) using said unique identifiers, updating the target dataset so that said target dataset includes those information records determined to have been added to or modified at the source dataset since the source dataset was last synchronized with the target dataset' [col. 11, line 40-48, line 49-61].

It is however, noted that Crozier does not specifically teach "globally unique identifier", although Crozier specifically teaches record number in source dataset and target data set specifies "unique record ID" [see Crozier: col. 8, line 22-25].

On the other hand, Norin disclosed 'globally unique identifier' [col. 9, line 64-66]. It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Norin into mapping, translating, and dynamically reconciling data between handheld computer and desktop computer of Crozier because both Crozier, and Norin are directed to "synchronizing data sets from source and target, more specifically Crozier is directed to dynamically reconciliation or synchronizing data records between desktop and handheld computer as detailed in fig 1, col. 11, line 32-39], while Norin also suggests synchronizing and replication of data sets or data objects in a distributing network [see fig 1, col. 2, line 44-50, col. 8, line 13-26], and both Crozier, Norin specifically teaches "data set or data records is assigned unique ID" [Crozier: col. 8, line 22-25; Norin: col. 9, line 49-50, line 53-54]. An ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Norin et al. into mapping, translating, and dynamically reconciling data between handheld computer and desktop computer of Crozier because that would have allowed users of Crozier to globally synchronizing clock value as part of the data set ID that identifier uniquely data records across source and target databases, further replication list also containing additional information indicating replication of the data set and a time last modified stamp indicating the time the replica state was last modified as suggested by Norin et al. [col. 10, line 22-28] bringing the advantages of highly flexible replication process where time based expiration can be tailored individually for each source and target database [col. 6, line 15-16].

As to claim 2, Crozier disclosed 'each dataset comprises a database table having a plurality of data records' [fig 2, element 103, element 200,col 6, line 31-34].

As to claim 3, Crozier disclosed 'wherein each dataset comprises an electronic address book listing contact information' [fig 3, element 121, col. 7, line 18-24].

As to claim 4, Crozier disclosed 'wherein each dataset comprises an electronic schedule listing scheduling information' [col. 7, line 10-13, fig 1, element 105].

As to claim 5, Norin disclosed 'globally unique identifiers are created by the system regardless of whether the source dataset includes existing record identifiers' [col. 9, line 53-59, line 62-67, col. 10, line 1-4].

As to claim 6, Norin disclosed 'globally unique identifiers are maintained in a record map stored apart from the source dataset' [col. 10, line 5-7].

As to claim 7, Norin disclosed 'globally unique identifier for each record comprises a timestamp which is assigned to the record when the record is initially processed by the system' [col. 9, line 56-59].

As to claim 8, Norin disclosed 'each globally unique identifier is a 32-bit value' [col. 9, line 66-67].

As to claim 9, Crozier disclosed 'synchronizing the information records of the target dataset with information records of the source dataset by designating the source dataset as the target dataset, designating the target dataset as the source dataset, and repeating said determining step and said synchronizing step' [col. 7, line 56-68].

As to claim 10, Crozier disclosed 'synchronization set comprises a delete order specifying particular information records to delete at the target dataset' [table 1, col. 9, line 10-11].

As to claim 11, Crozier disclosed 'delete order includes a list of unique identifiers for particular information records to delete at the target dataset' [col. 8, line 22-25, col. 11, line 32-39, line 44-48]. On the other hand, Norin disclosed 'globally unique identifier' [col. 9, line 65].

As to claim 12, Crozier disclosed 'synchronization set comprises an extraction record specifying particular information to add to or modify at the target dataset' [col. 7, line 45-54].

As to claim 13, Crozier disclosed 'extraction record includes at least one unique identifier together with field information for the particular information to add to or modify at the target dataset' [col. 8, line 10-31]. On the other hand, Norin disclosed globally unique identifier' [col. 9, line 65].

As to claim 14, Crozier disclosed 'excluding certain information records from participating in synchronization by applying a user-defined filter' [col 12, line 39-51, table 3].

As to claim 15-16, Crozier disclosed 'user-defined filter comprises an outbound filter applied to information records prior to creation of the synchronization set' [col. 14, line 1-6].

As to claim 17, Crozier disclosed 'user-defined filter comprises a user-supplied filtering routine supplying filtering logic' [col. 14, line 1-17].

As to claim 18-19, Crozier disclosed 'target dataset resides at a remote location relative to the source dataset' [col. 15, line 29-34, fig 1].

As to claim 20, Norin disclosed 'synchronization set is transmitted to the remote location using an electronic messaging communication protocol' [col. 1, line 45-51].

As to claim 21, Crozier teaches a system which including 'a synchronization system comprising: means for connecting a first device having a first dataset to a second device having a second dataset [fig 1, Abstract], first device having a first dataset corresponds to handheld computer fig 1, element 101; second device having a second dataset corresponds to fig 1, element 115 because both handheld computer, and desktop computer have database records as detailed in fig 1; synchronization corresponds to Crozier's dynamic reconciliation;

means for determining information of said first and second datasets which requires synchronization' [col 3, line 31-33, col 4, line line 53-57], Crozier specifically teaches dynamic reconciliation between source dataset and target dataset fc)r example as detailed in fig 1-2;

(i) means for determining for each dataset [fig 1-2, element 103,200] information which has been previously received from the other dataset but which no longer exists at the other dataset' [col. 5, line 9-17, line 39-42], Crozier specifically teaches mapping of the fields between handheld, desktop devices, translation of data between both devices,

and transfer of data between two devices as detailed in fig 1, furthermore, Crozier also suggests dynamically reconciling the records and resolving the conflicts between handheld and desktop data as detailed in col. 5, line 39-42

(ii) means for determining for each dataset information which has been added or modified at the other dataset since the other dataset was last synchronized with said each dataset [col. 11, line 62-67, col. 12, line 1-8, fig 7], Crozier specifically suggests if the data in any given field is different, update to the field, or edit part or all of the data in the record and write it to the target database as detailed in col. 12, line 1-8;

means, responsive to said determining means, for synchronizing said first and second datasets [fig 1-2, col. 3, line 31-37], Crozier specifically teaches dynamically reconciling two database files that corresponds to first and second datasets as detailed in col. 3, line 31-33;

wherein said information of said first and second datasets comprises data records [fig 1-2], first and second datasets comprises data records corresponds to fig 2, element 103, 105, 107, 109, 111, and 237, 239, 241, and 243; and wherein said means for determining include means for assigning to each data record a device-independent

unique identifier created by the system for uniquely identifying each data record regardless of which dataset and device it appears' [col. 8, line 10-38], Crozier specifically teaches mapping between handheld, desktop computer records specifying the both handheld, desktop applications, further, Crozier also suggests handheld

database file that specifies "record number", i.e., assigning "unique record id" defining the uniqueness of the record as detailed in col. 8, line 10-38.

It is however, noted that Crozier does not specifically teach "globally unique identifier", although Crozier specifically teaches record number in source dataset and target data set specifies "unique record ID" [see Crozier: col. 8, line 22-25]. On the other hand, Norin disclosed "globally unique identifier" [col. 9, line 64-66].

It would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Norin et al. into mapping, translating, and dynamically reconciling data between handheld computer and desktop computer of Crozier because both Crozier, and Norin are directed to "synchronizing data sets from source and target, more specifically Crozier is directed to dynamically reconciliation or synchronizing data records between desktop and handheld computer as detailed in fig 1, col. 11, 32-39], while Norin also suggests synchronizing, and replication of data sets or data objects in a distributing network [see fig 1, col. 2, line 44-50, col. 8, line 13-26], and both Crozier, Norin specifically teaches "data set or data records is assigned unique ID" [Crozier: col 8, line 22-25; Norin: col 9, line 49-50, line 53-54].

Thus, it would have been obvious to one of the ordinary skill in the art at the time of applicant's invention to incorporate the teachings of Norin et al. into mapping, translating, and dynamically reconciling data between handheld computer and desktop computer of Crozier because that would have allowed users of Crozier to globally

synchronizing clock value as part of the data set ID that identifier uniquely data records across source and target databases, further replication list also containing additional information indicating replication of the data set and a time last modified stamp indicating the time the replica state was last modified as suggested by Norin et al. [col. 10, line 22-28] bringing the advantages of highly flexible replication Process where time based expiration can be tailored individually for each source and target database [col. 6, line 15-16].

As to claim 22, Crozier disclosed 'wherein at least one of said devices is a hand-held computing device' [fig 1-2, element 101].

As to claim 23, Crozier disclosed 'wherein at least one of said devices is desktop computing device' [fig 1-2, element 115].

As to claim 24, Norin disclosed 'means for connecting includes a Transmission Control Protocol/Internet Protocol (TCP/IP) connection' [col. 8, line 60-64].

As to claim 25, Crozier disclosed 'synchronizing operates to provide bi-directional synchronization of the datasets' [col. 7, line 65-67].

As to claim 27, Crozier disclosed 'filter means for selectively blocking synchronization of certain types of information' [col. 12, line 39-42]..

As to claim 28, Crozier disclosed 'filter means operates based on how old information is' [fig 6, col. 8, line 39-42].

As to claim 29, Crozier disclosed 'filter means operates based on particular information content' [table 3, col. 12, line 20-39].

As to claim 30, Norin disclosed 'electronic mail transport means for enabling synchronization of remote datasets' [col. 1, line 45-51, col. 2, line 44-50].

As to claim 31, Crozier discloses 'the synchronization set comprises an envelope, a content header and a content body' [Col. 54-67 and fig. 6]

Response to Arguments

3. Applicant's arguments filed 1/29/2008 have been fully considered but they are not persuasive. The examiner respectfully traverses applicant's arguments.

Regarding claims 1, 21, applicant argued that Crozier does not teach "determining a synchronization set by: ... (ii) determining which, if any, information records have been added to or modified at the source dataset since the source dataset was last synchronized with the target dataset". On the contrary, Crozier teaches at Col. 12 lines 1-8 that "the data in each field in the desktop is compared with the data from the handheld" to determine which information record has been added to or modified. Crozier also teaches at Col. 12, table 3 the Pseudo codes for reconciliation of data including the codes for determining if the handheld and desktop field are unequal (i.e., information record has been modified) and codes for creating a desktop record from the handheld data (i.e., information record has been added).

Further, Crozier teaches at Col. 11 lines 25-30 that "Once data has been copied to two separate computers, different and inevitably conflicting - updates may be applied to the two separate copies of the data". Therefore, at the initial state, or after the last synchronization and before any change applied to the copies of data, both copies of data are the same. Conflicting is therefore caused by "information records have been added to or modified at the source dataset since the source dataset was last synchronized with the target dataset" as claimed.

Applicant further argued that Crozier and Norin fail to teach "based on said synchronization set, synchronizing information records of the source dataset with information record of the target data set by: (i) using said unique identifiers, deleting from the target dataset any information records which have been previously transmitted to the target dataset but no longer exist at the source data set". On the contrary, Crozier teaches at Col. 8 lines 10-38 that "'Record number" specifies the unique record id of the record in the MAPPING database which is required by the preferred embodiment for record uniqueness" and at Col 9 lines 32-39 the step of "dynamic reconciliation runs on the desktop computer during the translation process from the handheld computer to the desktop computer and usually includes mapping of files of different format". The purposes of synchronization or reconciliation are to bring the desktop and the handheld computer into agreement, i.e., both will contain the same data. Therefore, if a record were deleted in source, the reconciliation step must also delete the same record in the target in order to synchronize the source and target, and the system identifies the record based on the record unique identifier.

Regarding claim 6, applicant argued that Crozier and Norin do not teach "wherein said globally unique identifiers are maintained in a record map stored apart from the source data set". On the contrary, Norin teaches at Col. 10 lines 5-7 the "GUID is a unique 16 byte value created by concatenating a 60 bit system value, a 4 bit version number identifying which version of the ID generating program is used, a 16 bit clock sequence number that is incremented every time an ID is assigned, and a 48 bit network address drawn from the network hardware of the replica node." Cleary, the GUID is a unique identifier which is maintained in a record map stored apart from the source data set as claimed.

In light of the foregoing arguments, the 35 U.S.C 103 rejection is hereby sustained.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh B. Pham/
Primary Examiner
Art Unit 2166

April 11, 2008